# USER'S GUIDE

H22PX – HawkEye® Handheld Sonar System

Thank you for purchasing a HawkEye® product, and welcome to the innovations of NorCross Marine Products, Inc. To ensure safety and many years of trouble-free operation of your product, please read this manual carefully before using this product.

## SAFETY INFORMATION:

- Read this instruction manual carefully before attempting to install or operate this device.
- Periodically wipe the case with a dry cloth. Do not use abrasives or solvents on this device.
- Only qualified personnel should perform repairs or servicing not covered in this manual.
- The LCD used in the product is made of glass. Therefore, it can break when the product is dropped or impacted.
- Keep this product away from heat sources such as radiators, heaters, stoves and other heat generating sources.
- Do not store in extreme temperatures above 150° F (65° C).
- Shade the LCD during storage. Do not expose LCD to direct sunlight for extended periods of time.

## NOTES, NOTICES, AND CAUTIONS

WARNING: Indicates a potential for property damage, personal injury or death.

IMPORTANT: Indicates potential damage to the device and tells you how to avoid it.

NOTICE: Indicates important information that helps you make better use of the device and tells you how to correct a performance problem.

INFORMATION: Indicates resources to obtain the proper information to help you make the most of your device.

**WARNING:**

This depth sounder should not be used as a navigational aid to prevent grounding, boat damage, or personal injury. Always operate the boat at slow speeds in unfamiliar water, or if you suspect shallow water or submerged objects.

**INFORMATION:**

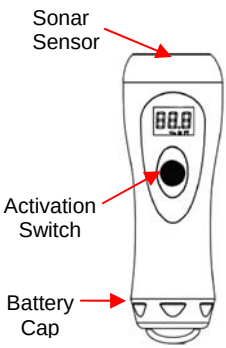
Read this manual completely before attempting to use or install your device. Visit our Customer Service Center on our website for advanced troubleshooting and technical support.

## PARTS SUPPLIED IN PACKAGING:

The Following Parts should be included in your H22PX Packaging:

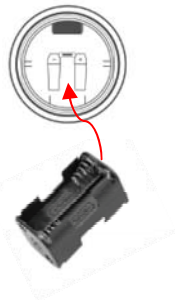
- H22PX Handheld Sonar System
- Battery Cap
- Battery Holder *(inside the battery compartment)*
- Lanyard *(attached to the Battery Cap)*
- FreedomClub Card
- User's Guide

If any items are missing or damaged, please contact our customer service department.




## INSTALLING THE BATTERIES:

1. Open the battery cap by unscrewing the battery cap counter-clockwise.
2. Remove the battery holder and install four 'AA' batteries. Be certain to align the batteries as per the diagram inside the battery compartment.
3. Align the channels on the battery holder with the grooves inside the electronics housing.
4. Insert the battery holder into the electronics housing, terminal side down, and turn the cap clockwise until snug (do not over-tighten).



**IMPORTANT:**

To ensure the device remains water tight, coat the Battery Cover O-Ring with silicon grease (available at any dive shop) each time you replace the batteries.

**WARNING:**

Never mix different brands of batteries. Never mix new and used batteries (alkaline, lithium, argon zinc, & rechargeable). Never use damaged batteries. REMOVE BATTERIES DURING STORAGE. REMOVE DEAD BATTERIES IMMEDIATELY.

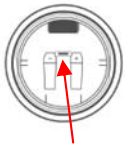
**NOTICE:**

If you are going to be using the H22PX in temperatures below 20º F (-7 ºC) you must use Lithium 'AA' batteries. Cold temperatures significantly reduce the power output of Alkaline batteries, which will inhibit the performance of the device.

## BASIC OPERATION:

**Switching the Readings from English to Metric**

1. Remove the battery holder as per the instructions in the "Installing the Batteries" section.
2. While looking into the battery compartment, use a small screwdriver, or other slender object, to reach into the battery compartment and move the switch to the LEFT for Metric readings, or to the RIGHT for English readings.
3. Replace the batteries as per the instructions in the "Installing the Batteries" section.




**Obtaining Depth Readings** *(Depth Reading Mode)*

1. Place the sonar sensor side of the device into the water. Make sure to hold the device perpendicular to the water surface.
2. Press and Release the activation button.
3. The current water depth will be indicated on the display:
   - The depth will continue to update 4 times per second while the device is left in water that is between 2.5 and 200 ft deep (.8 and 61 m).
   - If the device is unable to obtain an accurate depth reading or if it is removed from the water "- - -" will be displayed.
4. The device will turn off automatically after being removed from the water.


**NOTICE:**

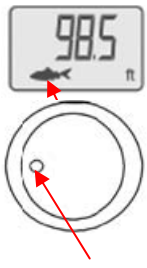
The device will not obtain readings through air. You CANNOT stand on the deck of your vessel and obtain readings unless the device is in direct contact with the water or you use one of the techniques described within this manual.

**Obtaining Fish Readings** *(Fish Finder Mode)*

1. If a fish is detected while in the *Depth Reading Mode*, a fish icon will illuminate on the display.
2. A blinking fish icon may represent the presence of a school of fish moving though the sonar beam.

**Obtaining Temperature Readings** *(Thermometer Mode)*

The H22PX has an integrated temperature sensor built into the sonar sensor housing.




**To Obtain Temperature Readings:**

1. Activate the *Depth Reading Mode*.
2. While in *Depth Reading Mode*, press and release the activation button."
3. The display will show the current temperature.
   - To obtain air temperature readings, hold the device in your hand and activate the *Thermometer Mode* as per the above instructions.
   - To obtain water temperature readings, place the Temperature Sensor into the water and activate the *Thermometer Mode.*

**INFORMATION:**

This device has a temperature accuracy rating of plus or minus 5%. The temperature probe may take up to 90 seconds to adjust to extreme changes in temperature. If you desire to have instant temperature readings you may want to consider purchasing the NorCross® Infrared Marine Thermometer (IR101SP).

## SHOOTING THROUGH A BOAT HULL

The H22PX advanced sonar capabilities allow it to "Shoot-Thru" the bottom of a boat, canoe, kayak, etc.

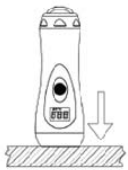
- The hull must be made out of solid fiberglass, or a maximum of 1/8" (3.1 mm) aluminum, and be in direct contact with the water, with no air pockets.
- The device will not work through wood, plastic, or any composite material.

**To "Shoot-Thru" the Hull of a Boat, Do One of the Following:**

1. Place the transducer in .5 inches (13 mm) of water against the hull bottom.
2. Coat the face of the transducer with petroleum jelly and press it against the hull bottom with a twisting motion.
3. Place the transducer in a plastic bag that is full of water and place against the hull bottom.
4. Refer to our website for more advanced instructions.

**1.**

**2**



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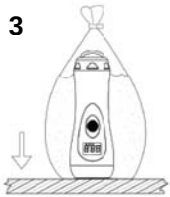


**NOTICE:**

Some boats have a hollow space between the floor and the hull bottom called a bilge. The H22PX will not "Shoot-Thru" in this type of boat unless it is placed directly against the hull surface that is in direct contact with the water.

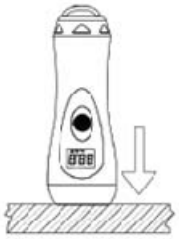
## SHOOTING THROUGH ICE

This device has advanced sonar capabilities also allow it to obtain depth and fish reading through solid ice. You MUST use special techniques to obtain readings through ice:

**NOTICE:**

The ice must be smooth and free from excessive air. Air will show up as white imperfections inside the ice. **The ice must be black in color.**

*To Shoot Thru Ice:*

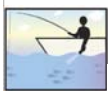


1. Clear away snow to expose the ice surface.
2. Place a small amount of liquid water on the ice and set the transducer side of the device on the water.
3. If there are any air pockets between the device and ice, or the water below the ice, the device will not work properly and will require you to try another spot, or cut a hole in the ice to use.

**INFORMATION:**

You can also use the "Plastic Bag" and "Petroleum Jelly" instructions in the "Shooting Thru a Boat Hull" section for shooting through ice. Visit our website for additional suggestions.

## SCANNING FOR DEPTH CHANGES OR FISH (SIDE-SCAN)



The device has the ability to be used as a sideways scanning sonar depth sounder/fish finder to search for drop-offs and hiding fish under docks, weeds, or vegetation.

**To Side-Scan:**

1. Activate the Depth Reading feature.
2. Place the device perpendicular to the water surface to obtain a correct depth reading.
3. Once a correct reading is obtained, move the H22PX around in a scanning motion (similar to using a flashlight).

**NOTICE:**

To obtain depth readings during side scanning the sonar signals must be directed at a solid surface that is within 200 ft *(61 m)* to function properly. You must be certain to aim the device at an object or the bottom within this range.

## USING FOR DIVING

The H22PX is waterproof to 200 ft *(61 m),* allowing you to use it as a range finder or target finder for snorkeling or diving. Keep in mind that the sonar signals must be directed at a solid surface that is within 200 ft *(61 m)* to display depth readings.

- You must be certain to aim the Device at an object or the bottom within this range.
- ALWAYS be certain to attach the Wrist/Safety Strap to your person, as the device will float to the surface if released.

## CARE AND MAINTENANCE

**Care for Your H22PX**

1. Clean the device with fresh water and dry off before storing.
2. Remove the batteries from the device to prevent battery leakage and corrosion.
3. Store the depth sounder in a cool, dry place. Never leave it in temperatures over 158º F (70 ºC) as the extreme temperatures can damage the electronic components.

## REPLACEMENT PARTS

Individual components are not available for sale on our website. If you need replacement parts, please email our customer service department.

*The following Parts Are User Replaceable:*

- Battery Cover
- Battery Holder
- Lanyard
- O-Ring Kit

## TROUBLESHOOTING AND FREQUENTLY ASKED QUESTIONS

24-Hour Technical Support is available online at www.hawkeyeelectronics.com. Search our online Knowledgebase for the latest troubleshooting and FAQ's, or post your own question for our support staff. For one-on-one support please email customerservice@norcrossmarine.com.

**INFORMATION:**


If you have questions about this device please visit our Customer Service Center on our website or *call us toll free at 888-766-7276.*

**Warranty Details • Warranty Registration**

**Troubleshooting • Product Knowledgebase**

**Product Specifications • Parts & Accessories**

**www.hawkeyeelectronics.com**

**Nothing Happens When I Turn the Power On**

Make sure that you have installed a good set of batteries and aligned them as per the diagram within the battery compartment. You may also need to test the batteries in another device to ensure they are charged. If in doubt, replace the batteries with a set from a newly opened package.

**The Depth Reading Is "---"**

Make sure that the sonar sensor is in direct contact with the water and that you are operating the unit in depths between 2.5 and 199 ft (.8 to 61 m). Be aware that the depth signal is sent from the sonar sensor in a manner similar to that of flashlight beam. Holding the unit perpendicular to the water surface will ensure accurate readings. The unit will not

function properly if there is air between the sonar sensor and the water surface; keep this in mind when using the device through a boat hull or ice.

### I See Fish Under the Sonar Sensor, but Nothing Appears on the Display

As with the depth reading, the fish finder will not detect any objects that are closer than 2.5 ft from the sonar sensor. If you're fishing in water that is less than 3 feet deep, it is recommended to discontinue use of the fish finder.

### The Depth Reading is Incorrect

Make sure that you are pointing the sonar sensor perpendicular to the water when trying to obtain depth readings.

Extremely heavy vegetation may confuse the sonar of the fish finder causing it to misinterpret the depth. If you are certain that the readings are incorrect under these conditions, discontinue use.

### I'm Not Getting A Reading While Trying to Shoot Through My Boat Hull or Ice

Shooting through the hull of a boat/canoe or ice can be difficult, as hidden air pockets will prevent you from obtaining a reading. Make certain that the hull or ice is solid from the surface to the water with no air bubbles and/or gaps. Shooting through composite hulls (plastic) or cloudy ice is not possible as tiny air bubbles are usually present in these situations.

### I'm Getting False Fish Indications

The most common cause of false fish indications is extremely tall weed growth. If weeds grow taller than 50% of the total water depth in a particular area, the sonar will mistake it for fish. Trash & debris may also give false readings.

## ONLINE CUSTOMER SERVICE CENTER TOOLS

## WARRANTY

This device is covered by a 2 Year Limited Warranty. To be eligible for warranty coverage, you must register your product within 15 days of purchase. Visit our website for warranty details and to register.

**To Activate Your Warranty:**

- Read and print out a copy of the warranty details for your records.
- Complete the registration form on our website.
- Make a copy of your original purchase receipt and staple it to this manual. *You will need to present it in the rare occurrence that you need to send your product in for service.*
- Complete the information below and store this manual in a safe place. *You can print additional copies of this manual from our website.*

**INFORMATION:**

To aid in maintenance and service, record the following:

Date of Purchase: _____

Place of Purchase: _____

Date of Online Warranty Registration: _____

Production Date Code : _____ *(3 digit code located on the device housing)*

## LEGAL

**INFORMATION:**

**Made in China.** Tested to comply with FCC, CE & ROHS standards if applicable. Visit our website for compliance and warranty information. All Specifications and Prices Subject to Change Without Notice.

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**WARNING:**